

**WHAT IS CLAIMED IS:**

1. A method for controlling a priority access and channel assignment (PACA) call in a mobile telecommunication system, the method comprising:

5 sending a new origination message from a mobile station in a PACA state to a base station;

sending a service request message for the PACA call from the base station to a mobile switching center;

10 requesting from the mobile switching center that the base station assign a traffic channel to the mobile station;

assigning an available traffic channel to the mobile station to start a communication; and

distinguishing the PACA call service from an ordinary call service.

15 2. A method as defined in Claim 1, wherein the new origination message includes a parameter for indicating that that the PACA call is requested again.

3. A method as defined in claim 1, wherein the available traffic channel is assigned to the mobile station to start a communication by the base station.

20 4. A method as defined in claim 1, wherein the PACA call service is distinguished from the ordinary call service by the mobile switching center.

25 5. A method for controlling a PACA call in a mobile telecommunication system, the method comprising:

determining whether or not an origination message from a mobile station for the PACA call has the same subscriber's registered location as the subscriber's registered location in a visitor location register (VLR);

30 determining that the mobile station has been handed off from a previous base station to a new base station if the subscriber's registered location of the origination message is not the same as that of the VLR;

sending a first PACA call update message to the previous base station; and deleting the first PACA call information from the previous base station.

5 6. A method as defined in Claim 5, wherein the deleted first PACA call information is stored in a PACA call buffer of the previous base station.

7. A method as defined in Claim 5, wherein the subscriber's location registered in the VLR is registered when the mobile station is shifted to a PACA state after sending the origination message.

10 8. A method as defined in Claim 5, wherein the origination message is determined as the PACA call by detecting a parameter representing the PACA call.

15 9. A method as defined in Claim 8, further comprising:  
determining whether the mobile station is in the PACA state or not, if the subscriber's registered location of the origination message does not agree with that of the VLR;

20 determining whether a cell ID of the origination message agrees with the origination message registered in the VLR if the mobile station is in the PACA state;  
determining that the mobile station has sent a new origination message in the PACA state if the cell ID of the origination message agrees with that registered in the VLR;

25 sending a second PACA call update message to the previous base station; and deleting the second PACA call information from the previous base station.

10. A method as defined in Claim 9, wherein the PACA call deleted from the base station is previously stored in the PACA call buffer of the base station.

11. A method for controlling a PACA call in a mobile telecommunication system, the method comprising:

5        sending a PACA call cancel message from a mobile station in a PACA state to a base station;

      sending a PACA call update message from the base station to a mobile switching center; and

      sending a mobile station PACA CALL update message from the mobile switching center to the VLR.

10       12. A method as defined in Claim 11, further comprising deleting the PACA call update message from the mobile station.

13. A method for controlling a PACA call in a mobile telecommunication system, the method comprising:

15       analyzing information from a receiving subscriber toward which a call signal is directed; and

      canceling the call signal when a mobile station of the receiving subscriber is in a PACA state.

20       14. A method as defined in Claim 13, further comprising sending a busy tone to a sending subscriber who has generated the call signal.

15       15. A method as defined in Claim 13, further comprising sending a call message to the mobile station of the receiving subscriber when it is not in the PACA state.

25       16. A system for controlling a priority access and channel assignment (PACA) call in a mobile telecommunication system, the system comprising:

      a mobile station configured to send a new origination message in a PACA state to a base station;

30       the base station configured to send a service request message for the PACA call to a mobile switching center;

the base station further configured to assign an available traffic channel to the mobile station to start a communication; and

17. An apparatus for controlling a priority access and channel assignment (PACA) call in a mobile telecommunication system, the apparatus comprising:

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